

[1]

EC-TYPE EXAMINATION CERTIFICATE



[2]

Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

[3]

EC-Type Examination Certificate Number: **DEMKO 11 ATEX 1110052X Rev. 2**

[4]

Equipment or Protective System: **Intrinsically Safe Flashlight**

[5]

Manufacturer: **Daysun Industrial Corporation**

[6]

Address: **1st Floor No. 6, Lane 110, Sec 4, Hsi-Men Road, Tainan 704, Taiwan**

[7]

This equipment or protective system and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

[8]

UL International Demko A/S, notified body number 0539 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report no. **11NK12717**

[9]

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2009

EN 60079-11:2012

EN 60079-26:2007

[10]

If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

[11]

This EC-Type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by the certificate.

[12]

The marking of the equipment or protective system shall include the following:

II 1 G Ex ia IIC T4

Certification Manager

Jan-Erik Storgaard

Notified Body

This is to certify that the Product(s) described herein has been investigated to the Standard(s) indicated on this Certificate, in accordance with the ATEX Equipment Certification Program Requirements. The certificate and test results obtained apply only to the product tested. UL has not established Follow-Up Service or other surveillance of the product. The Applicant and/or Manufacturer are solely and fully responsible for conformity of all products to all applicable standards, specifications, requirements and Directives.

Date of issue: 2011-09-15

Re-issued: 2013-04-05

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[13]

Schedule

[14]

EC-TYPE EXAMINATION CERTIFICATE No.

DEMKO 11 ATEX 1110052X Rev. 2

Report: 11NK12717

[15]

Description of Equipment or protective system

Models DF1013, SF-9 and SF-10 are LED flashlights for use with four Energizer model E91, Duracell model MN1500, AA size, 1.5 V alkaline cells. These flashlights are intrinsically safe for use in Zone 0, Group IIC.

Temperature range

The ambient temperature range is -20 °C to +40 °C.

Performance Testing

The optical radiation output of the apparatus with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 94/9/EC is not covered in this certificate.

Routine tests

None.

[16]

Report No.

Project Report No.: 11NK12717 (Hazardous Location Testing)

Documents:

<u>Description:</u>	<u>Drawing No.:</u>	<u>Rev. Level:</u>	<u>Date:</u>
DF1013 Assembly	EX01.DF1013 Explosion	2	2013-01-15
SF-9 Assembly	EX01.SF-9 Explosion	2	2013-01-16
SF-10 Assembly	EX01.SF-10 Explosion	2	2013-01-16
LED Assembly (DF1013, SF-9 & SF-10)	A03.DF1013 LED PCB Assembly	2	2013-01-17
PCB Assembly (DF1013, SF-9 & SF-10)	A04.DF1013 Circuit PCB Assembly	2	2013-01-17
Lamp Assembly (DF1013, SF-9 & SF-10)	A02.DF1013 Lamp Assembly	2	2013-01-17
Battery Separation (DF1013, SF-9 & SF-10)	A01.DF1013 Battery Separation	2	2013-01-17
Vent (DF1012, SF-9 & SF-10)	M04.DF1013 Vent	1	2013-03-19
Wire (DF1012, SF-9 & SF-10)	M05.DF1013 Wire	1	2013-03-20
Schematic (DF1013, SF-9 & SF-10)	E01.DF1013 Schematics	2	2013-01-17
PCB Layout (DF1013, SF-9 & SF-10)	E03.DF1013 Circuit PCB	2	2013-01-17
LED PCB Layout (DF1013, SF-9 & SF-10)	E02.DF1013 LED PCB	2	2013-01-17
DF1013 BOM Electrical (DF1013, SF-9 & SF-10)	B02.DF1013 BOM-EE	2	2013-01-16
DF1013 BOM Mechanical	B01.DF1013 ME-BOM	2	2013-01-16
SF-9 BOM Mechanical	B01.SF-9 ME-BOM	2	2013-01-16
SF-10 BOM Mechanical	B01.SF-10 ME-BOM	2	2013-01-16
DF1013 Body	M01.DF1013 Body	2	2013-01-17
SF-9 Body	M01.SF9 Body	2	2013-01-17
SF-10 Body	M01.SF10 Body	2	2013-01-17
Cap Lens (DF1013, SF-9 & SF-10)	M02.DF1013 Cap Lens	2	2013-01-17
DF1013 Cap Rubber	M03.DF1013 Cap Rubber	2	2013-01-17
SF-9 Cap Rubber	M03.SF-9 Cap Rubber	2	2013-01-17
SF-10 Cap Rubber	M03.SF-10 Cap Rubber	2	2013-01-17
DF1013 Marking (ATEX/IEC Only)	L03. DF1013 Marking EU	2	2013-03-12
DF1013 Marking (ATEX/IEC & UL)	L01.DF1013 Marking	2	2013-03-12
SF-9 Marking (ATEX/IEC Only)	L03. SF-9 Marking EU	2	2013-03-12
SF-9 Marking (ATEX/IEC & UL)	L01.SF9 Marking	2	2013-03-12
SF-10 Marking(ATEX/IEC Only)	L03. SF-10 Marking EU	2	2013-03-12
SF-10 Marking (ATEX/IEC & UL)	L01.SF10 Marking	2	2013-03-12
DF1013 User Manual	UM01.DF1013 User Manual	2	--
SF-9 User Manual	UM01.SF9 User Manual	2	--
SF-10 User Manual	UM01.SF10 User Manual	2	--



[13]

Schedule

[14]

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Report: 11NK12717

[17]

Special conditions for safe use:

- Read manual before use.
- Do not open the enclosure in a hazardous area.
- Replace batteries only in non-hazardous areas.
- Only for use with four AA alkaline batteries type Energizer E91 or Duracell MN1500.
- Do not mix batteries from different manufacturers.
- Do not mix used batteries with new batteries.
- The screw shall be secured tightly after opening and closing the enclosure.
- Substitution of components may impair intrinsic safety.

[18]

Essential Health and Safety Requirements

Concerning ESR this Schedule verifies compliance with the Annex III of ATEX directive only. The manufacturer's Declaration of Conformity declares compliance with other relevant Directives.

The Registered Trademark,



, for Daysun Industrial Company will be used as the company identifier on the marking label.

Additional information

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in ANNEX III to Directive 94/9/EC of the European Parliament and the Council of 23 March 1994.

